Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ TP: \_\_\_\_\_\_\_

HW#13H: Midpoint Application – Day 1

Honors Geometry

Due Date: Wednesday, Oct 1st , 2014

**GRASP! on a separate piece of graph paper. Write in complete sentences for GASP [or LaSalle!].**

1) Opposite vertices of a rectangle in the standard (x, y) coordinate plane have coordinates (5, 37) and (17,7), respectively. What are the coordinates of the center of this rectangle? You must include a picture of the rectangle.

2) The side of a square in the standard (x, y) coordinate plane has a midpoint of (3,4) and an endpoint of (7, 4). What are the coordinates of the other endpoint? You must include a picture of the square.

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| Use the number line below to answer questions 3 – 4.. | |
| 3. How much longer is *AD* than *BE*? | 4. How much longer is *CD* than *DE*? |
| Description: http://image.tutorvista.com/Qimages/QD/50234.gif  5. Name at least 3 sets of 3 points in the figure above that are coplanar.   1. **\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_** 2. **\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_** 3. **\_\_\_\_\_ \_\_\_\_\_ \_\_\_\_\_** | 6. If *AC* = 35, what is the value of MC?  x + 5 2x  A M C |
| 7. Find *BC.* |
| 8. Solve by completing the square: | 9. Use the discriminant to find all values of c for which the equation has two real solutions. |